Entergy New Orleans

Advanced Metering Infrastructure Pilot

Abstract

Entergy New Orleans' (ENO) Advanced Metering Infrastructure (AMI) Pilot program includes smart meters, in-home displays (IHDs), programmable communicating thermostats (PCTs), and Web portals for low-income customers. The pilot project evaluates customer acceptance and the impacts of peak time rebates, air-conditioning load controls, and enabling technologies on customer electricity usage and peak demands. ENO is working with local community outreach organizations to help solicit and enroll low-income customers in the pilot programs.

At-A-Glance

Recipient: Entergy New Orleans, Inc.

State: Louisiana

NERC Region: SERC Reliability Corporation (SERC)

Total Budget: $10,306,668

Federal Share: $4,996,968

Project Type: Advanced Metering Infrastructure

Equipment

- **4,7000 Smart Meters**
- **AMI Communication Systems**
- **Enhanced Web Portal access for 3,500 customers**
- **3,000 In-Home Displays**
- **400 Programmable Communicating Thermostats**

Time-based Rate Programs

- **Peak Time Rebate**

Targeted Benefits

- **Reduced Electricity Costs for Customers**

Smart Grid Features

Communications infrastructure includes the deployment of a two-way communications network capable of collecting electricity usage information from smart meters and other customer systems and notifying customers of peak time rebate and air conditioning load control periods. The home area network (HAN) devices and Web portals also display month-to-date and projected month ending usage and dollar amounts and graphs of electricity usage for the previous 24-hour and 30-day periods. The smart meters are equipped with ZigBee radios to enable communications with the IHDs and PCTs.

Advanced metering infrastructure includes the deployment of approximately 4,700 smart meters targeting low-income customers in New Orleans. The interval load data is made available to customers to enable a better understanding of electricity use and enables the customer to better manage their electricity usage and bills. A meter data management system enables ENO to manage load data and interface with back office systems. This infrastructure enables data communication with HAN devices.

***Advanced electricity service options* offered through the project** include deployment of up to 3,000 IHDs, 400 PCTs, and 3,500 customer Web portal accounts. Air conditioning load management employs the PCT, smart meter, and a control strategy to cycle the air conditioning compressor off for 20 minutes per hour for three consecutive hours during peak periods in exchange for a monthly rebate. Web portals and HAN devices provide customers with month-to-date and projected month ending usage and dollar amounts, and graphs of electricity usage (in kWh) for the previous 24-hour and 30-day periods.

Time-based rate programs, offered in conjunction with the air-conditioning load management program, include a 4-month peak-time-rebate pricing pilot for up to 400 customers. Participants receive notification by 5 pm on the day

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before a peak event and can adjust their usage accordingly. Peak-time rebate customers are compensated for their reduction in electricity usage based on a comparison with their consumption 2 days before and after the event day.

Timeline

Key Milestones	Target Dates
AMI asset deployment begins	Q4 2010
AMI asset deployment ends	Q2 2011
Pricing programs begin	Q2 2011
Pricing programs end	Q4 2011

Contact Information

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